#### State of California AIR RESOURCES BOARD

### EXECUTIVE ORDER A-10-657 Relating to Certification of New Motor Vehicles

#### FORD MOTOR COMPANY

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That Ford Motor Company 1996 model-year exhaust emission control systems are certified as described below for light-duty trucks:

Fuel Type: Gasoline

Engine Family: TFM3.028G1FK <u>Displacement</u>: 3.0 Liters (183 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

Three Way Catalytic Converters (two)
Dual Heated Oxygen Sensors
Heated Oxygen Sensor
Exhaust Gas Recirculation
Sequential Multiport Fuel Injection

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The certification exhaust emission standards for this engine family in grams per mile are:

Loaded Vehicle <u>Weight(lbs.)</u>	<u>Miles</u>	Non-Methane Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Carbon Monoxide (20°F)
3751-5750	50,000	0.32	4.4	0.7	12.5
	100,000	0.40	5.5	0.97	n/a

The certification exhaust emission values for this engine family in grams per mile are:

Loaded Vehicle <u>Weight(lbs.)</u>	Miles	Non-Methane <u>Hydrocarbons</u>	Carbon <u>Monoxide</u>	Nitrogen <u>Oxides</u>	Carbon Monoxide (20°F)
3751-5750	50,000	0.14	1.0	0.2	4.5
	100,000	0.17	1.0	0.23	n/a

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the aforementioned exhaust emission standards based on its submitted plan to comply with the fleet average non-methane organic gas (NMOG) exhaust mass emission requirements as set forth in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That under the submitted NMOG fleet average compliance plan, if the manufacturer incurs a NMOG debit for the aforementioned model year based on the projected NMOG fleet average exceeding the value required by the above-referenced standards and test procedures, all incurred NMOG debits by the manufacturer shall be equalized as required by the standards and test procedures.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the 50,000-mile evaporative emission standards applicable to 1980 through 1994 model-year vehicles in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles", and the listed vehicle models comply with those standards.

BE IT FURTHER RESOLVED: That, based on the evaporative emission phase-in compliance schedule submitted by the vehicle manufacturer, the listed vehicle models shall not be subject to the running loss and useful life standards set forth in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles."

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" for the aforementioned model year (Title 13, California Code of Regulations, Section 2235).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high-altitude requirements and highway emission standards, and with the California Inspection and Maintenance emission standards in place at the time of certification, as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Emission Control Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" (Title 13, California Code of Regulations, Section 1968.1) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this \_\_\_\_\_ day of August 1995.

B. Summerfield

Assistant Division Chief Mobile Source Division

Mfgr. FORD MOTOR COMPANY	Exha	aust Engi	ne Fami	ly: <u>TFM3.0</u> 2	28G1FK	
Engine Code Types: CAX 49S_	50S Eva	orative	Emissio	ns Family:	rFM1045AYP	BA
Exh Std: Tier-0 Tier-1_X_	TLEV LEV_	ULEV_	ZEV	EPA_TI	ER-0	TIER-1
Evap Std: 50KX Useful Life	with R/L	In-Use Ex	kh Std:	Full In Use	$\Delta$ Alt:	In Use
Veh Class(es): PCLDT1	LDT2_X_ MDV	L MDV:	2 Mi	DV3 MDV4	MDV5	
Single Cert Std for Multi-Cla	ss Eng Fam: <u>N</u>	<u>'A</u> (spo	ecify: 1	N/A, LDT1,MI	OV1,MDV2,MI	OV3,MDV4)
Exh Cert Fuel(s): Indo_X Ph M85 CN	2 Diesel: 1 G LPG (	.3 CCR 228 Other (sp	82onecicy)	r 40CFR 86.1	L13-90 (	or -94
Fuel Type(s): Dedicated	Flex Fuel I	Dual-Fuel CNG	LPG	Other (:	specify)	
Hybrid: Type A B C	_, APU Cycl	e (eg,	Otto, D	iesel, Turb	ine)	
Engine Config V-6 Disp Valves/Cyl: 2 Engine: Front X Mid Re						T_X_
Exhaust Control System and Sp	ecial Features	TWO(2)SF (Use at	<u>I,2HO2S</u> breviat	. EGR #025 ions per SA	E J1930 SE	P91)
Engine Code Vehicle Models (also list (if coded see CA/49ST/50ST attachment)	Trans. Type A-Automatic M-Manual	or		Ignition (ECM/PCM) Part No.		Catalytic Converter Part No.
556SR15A/N Ranger/Mazda 4x2	A4			F57F-CJA	F37E-CA F3DE-AA E6AE-BA	F57A-ED
SC SWB SC SWB		3750 3750	11.2 12.3*			
556RR15A/N Ranger/Mazda 4x4 RC LWB RC SWB RC LWB	A4	3875 3875 3875	12.0 12.0 13.2*	F57F-CLA	n	ŧI

<sup>\*</sup> with air conditioning

E.O.# A-1065.7

# 1996 MODEL YEAR SUPPMENTAL DATA SHEET EXHAUST/EVAPORATIVE SYSTEM & CALIFORNIA REQUIREMENTS PASSENGER CARS, LIGHT-DUTY AND MEDIUM-DUTY TRUCKS

Mfgr. FORD	MOTOR COMPANY	Exha	aust Engin	e Fami	ly: <u>TFM3.02</u>	BG1FK	<del></del>
Engine Code T	ypes: CA <u>X</u> 49S	_ 50S Eva	porative E	missio	ns Family:_1	FM1045AYPB	Α
Exh Std: Tier	-0 Tier-1_X_	TLEV LEV_	ULEV_	ZEV	EPA TI	ER-0 T	IER-1
	K <u>X</u> Useful Life						
Veh Class(es)	: PC LDT1	LDT2_X_ MDV	ı MDV2	MI	OV3 MDV4	MDV5_	_ <del></del>
	td for Multi-Clas						
	(s): Indo_X Ph2 M85 CNG	LPG C	Other (spe	(CICY)	r 40CFR 86.1	.13-90 0	r -94
	Dedicated F	rlex Fuel	Dual-Fuel_ CNG	LPG	Other (s	specify)	<u> </u>
	B C	., APU Cycl	e (eg, (	Otto, D	iesel, Turb	ine)	
Valves/Cyl: _ Engine: Fron	it_XMid Rea	Rat ir Dri	ve: Fwd_	RWI	X 4WD-FT	4WD-P	r_ <u>X_</u>
Exhaust Contr	col System and Spe	ecial Features	TWC[7)SF] (Use ab	<u>,2HO2S</u> breviat	EGR 4025 Lions per SA	E J1930 SE	P91)
Engine Code (also list CA/49ST/50ST	(if coded see	A-Automatic	or	DPA   or   RLHP	Ignition (ECM/PCM) Part No.	EGR   System   Part No.	Catalytic Converter Part No.
556SR15A/N	Ranger/Mazda 4x	2 A4			F57F-CJA	F37E-CA F3DE-AA E6AE-BA	F57A-ED
	SC SWB		3750	11.2			
	SC SWB		3750	12.3*			
556RR15A/N 1	Ranger/Mazda 4x4	A4		10.0	F57F-CLA	If	n
	RC LWB		3875	12.0 12.0			
	RC SWB (Ranger on		3750 3875	12.0			
	RC SWB (Mazda onl	уі	3875	13.2*			
	RC LWB		3875	13.2*			
	RC SWB SC SWB		4000	12.0			
	SC SWB SC SWB		4000	13.2*			

ENGINE FAMILY: SFM3.028G1FK ISSUED: 7-25-96 REVISED:

MAY 3 0 1996

<sup>\*</sup> with air conditioning

Mfgr. FORD	MOTOR COMPANY	Exhaust	Engine Fa	amily:	TFM3.028G1	FK	
Engine Code 7	Types: CA_X_49S	_ 50S	Evapora	tive E	missions Fam	ily: <u>TFM10</u>	45AYPBA
Exh Std: Tier	r-0 Tier-1_X_	TLEV LEV_	ULEV_	ZE	V EPA TI	ER-0 T	'IER-1
	K <u>X</u> Useful Life						
	: PC LDT1						
	Std for Multi-Clas						
	l(s): Indo <u>X</u> Ph2	M85	CNG_	LP(	r 40CFR 86.1 G Other	L13-90 c (specicy)	or -94
Fuel Type(s)	: Dedicated	Flex Fuel Gasolin	Dual-Fuel e <u>X</u> Die	sel	M85 CN	GLPG_	Other
(specify) Hybrid: Typ	e A B C	_, APU Cyc	:le (eg,	Otto,	Diesel, Tur	bine)	
		ar Drive:	Fwd	RWD_X_		140 @ 50 4WD-PT X	000 RPM
Exhaust Cont	rol System and Spe	ecial Features	TWOZ SF	.zH029	EGR HOL		
(Use abb	reviations per SAF	J1930 SEP91)					
Engine Code (also list CA/49ST/50ST	Vehicle Models   (if coded see   attachment)	A-Automatic	ETW   or   Test Wt	DPA or RLHP	(ECM/PCM)		Catalytic   Converter   Part No.
555SR15A/N	Ranger/Mazda 4x2	M5			F57F-CHA	F37E-CA F3DE-AA E6AE-BA	F57A-ED
	SC SWB		3750	12.3*			
55 <b>5</b> RR15A/N	Ranger/Mazda 4x4	M5			F57F-CGA	н	11
	RC LWB		3750	12.0			
	RC SWB		3750	12.0			
	RC LWB		3875	13.2*			
	RC SWB (Mazda on	ly)	3875	13.2*			
	RC SWB (Ranger o	nly)	3750	13.2*			
	SC SWB		4000	12.0			
	SC SWB		4000	13.2*			

<sup>\*</sup> with air conditioning

Mfgr. <u>FORD MOTOR COMPANY</u>	Exh	aust Engi	ne Fami	ly: <u>TFM3.0</u>	28G1FK	
Engine Code Types: CA_X 49S_ 50S	Eva	porative 1	Emissic	ons Family:_	rfm1045AYPI	3A
Exh Std: Tier-0 Tier-1_X TLEV	LEV_	ULEV_	ZE	V EPA TI	ER-0T	'IER-1
Evap Std: 50K_X_ Useful Life with	R/L	In-Use Ex	h Std:	Full In Use	Alt I	n Use
Veh Class(es): PC LDT1 LDT2	2 <u>X</u> MDV:	ı MDV2	2 M	IDV3 MDV4	1 MDV5_	_
Single Cert Std for Multi-Class Eng	γ Fam: <u>N</u>	<u>/A</u> (spe	cify:	Ν/A, LDT1,MI	OV1,MDV2,ME	V3,MDV4)
Exh Cert Fuel(s): Indo_X Ph2 M85 CNG	LPG	Other (spe	ecicy)	r 40CFR 86.1	.13-90 c	or -94
Fuel Type(s): Dedicated Flex F Gasoline X Diesel_	Tuel I	Dual-Fuel CNG	T.PG	Other (	specify)	
Hybrid: Type A B C,	APU Cycl	e (eg,	Otto, I	Diesel, Turb	ine)	
Engine Config <u>V-6</u> Displacement Valves/Cyl: 2 Engine: Front X Mid Rear	Rat	ed HP· 1	40 @	5000 RPM		г <u>х</u>
Exhaust Control System and Special	Features	TWC(E)SF	1,2HO2S brevia	s, EGR, <i>HO</i> Z tions per SA	<u>S</u> E J1930 SE	P91)
Engine Code   Vehicle Models   Tran			DPA	•	EGR	Catalytic
(also list   (if coded see   A-Au	ıtomatic	or		(ECM/PCM)		Converter
CA/49ST/50ST   attachment)   M-	-Manual	Test Wt	RLHP	Part No.	Part No.	Part No.
656SR10A/N Ranger/Mazda 4x2	A4			F57F-CJB	F37E-CA F3DE-AA	F57A-ED
6.6 5.15		2750	11.2	•	E6AE-BA	
SC SWB SC SWB		3750 3750	12.3*			
SC SHB		3,30				
656RR10A/N Ranger/Mazda 4x4	A4			F57F-CLB	τι	"
RC LWB		3875	12.0			
RC SWB (Ranger only)		3750	12.0			
RC SWB (Mazda only)		3875	12.0			
RC LWB		3875	13.2*			
RC SWB		3875	13.2*			
SC SWB		4000	12.0			
SC SWB		4000	13.2*			

<sup>\*</sup> with air conditioning

Mfgr. FORD	MOTOR COMPANY	Exhaust	Engine Fa	mily: <u>T</u>	FM3.028G1	7K	<del></del>
Engine Code T	ypes: CA <u>X</u> 49S	50SEvapor	ative Emi	ssions Fa	amily: TFM	1045AYPBA	
	-0 Tier-1 <u>X</u>						
	K <u>X</u> Useful Life						
	: PCLDT1	<b>x</b>					
	td for Multi-Clas						
	(s): Indo X Ph2	M85	CNG_	1,26	40CFR 86.1 Other	.13-90 c (specicy)	or -94
Fuel Type(s):	Dedicated	Flex Fuel Gasolin	Dual-Fuel e <u>X</u> Die	. <u></u> sel M	185 CN	GLPG_	Other
(specify) Hybrid: Type	B C	, АРИ Сус	le (eg,	Otto, Di	esel, Tur	bine)	· · · · · · · · · · · · · · · · · · ·
Exhaust Contr	2  nt_X Mid Reactor	r Drive:	Fwd	RWD <u>X</u>	ated HP: _ WD-FT		100 RPM
(Use abbr	eviations per SAE	J1930 SEP91)					
Engine Code (also list CA/49ST/50ST	(if coded see	A-Automatic	ETW or Test Wt	or (	gnition ECM/PCM) Part No.	•	Catalytic Converter Part No.
655SR10A/N	Ranger/Mazda 4x2	М5		F5	7F-CHB	F37E-CA F3DE-AA E6AE-BA	F57A-ED
	SC SWB		3750	12.3*			
655RR10A/N	Ranger/Mazda 4x4 RC LWB RC SWB RC LWB RC SWB (Mazda on: RC SWB (Ranger o	ly)	3750 3750 3875 3875 3750	F5 12.0 12.0 13.2* 13.2*	57F-CGB	н	n
	SC SWB SC SWB		4000 4000	12.0 13.2*			·

<sup>\*</sup> with air conditioning

Mfgr. <u>FORD N</u>	MOTOR COMPANY	Exh	aust Engi	ne Fami	ly: <u>TFM3.0</u>	28G1FK	· · · · · · · · · · · · · · · · · · ·
Engine Code Ty	ypes: CA <u>X</u> 49S_	50S Eva	porative	Emissio	ons Family:_	TFM1045AYP	AE.
Exh Std: Tier-	-0 Tier-1_X_	TLEV LEV	ULEV	ZE	V EPA T	IER-O	TIER-1
Evap Std: 50H	K <u>X</u> Useful Life	e with R/L	In-Use E	kh Std:	Full In Use	e Alt 1	n Use
Veh Class(es):	: PC LDT1	LDT2_X MDV	1 MDV:	2 N	DV3 MDV	4 MDV5_	_ <del></del>
Single Cert St	ed for Multi-Clas	ss Eng Fam: <u>N</u>	<u>/A</u> (spe	ecify:	N/A, LDT1,M	OV1,MDV2,MI	0V3,MDV4)
Exh Cert Fuel	(s): Indo_X_ Ph2	Diesel:			r 40CFR 86.	113-90 (	or -94
Fuel Type(s):	Dedicated I	Flex Fuel	Dual-Fuel				
Hybrid: Type	Gasoline_X D: A B C	iesel M85_ _, APU Cycl	CNG e (eg,	_ LPG_ Otto, I	Other ( Diesel, Turb	specity) ine)	<del></del>
Values/Cvl - 3	<u>V-6</u> Disp 2 L X Mid Rea	Rat	ed HP: 1	40 @	5000 RPM		r_ <u>X_</u>
Exhaust Contro	ol System and Spe	ecial Features	TWO SF	I <u>2H029</u> brevia	, EGR, HOZ Lions per SA	∫ E J1930 SE	P91)
	Vehicle Models			DPA	_	EGR	Catalytic
	(if coded see attachment)				(ECM/PCM) Part No.	:	
CA/4951/5051	attachment/	M-Manuar	l lest we	KLINF	Fare No.	L L	
656SR11A/N	Ranger/Mazda 4x2	2 A4			F57F-CJC	F37E-CA F3DE-AA	F57A-ED
						E6AE-BA	
\$	SC SWB		3750	11.2			
5	SC SWB		3750	12.3*			
656RR11A/N R	anger/Mazda 4x4	A4			F57F-CLC	ıı	n
	C LWB		3875	12.0			
	C SWB (Mazda only	y)	3875	12.0			
	C SWB (Ranger on		3750	12.0			
	C LWB	-	3875	13.2*			
RO	C SWB		3875	13.2*			
S	C SWB		4000	12.0			
S	C SWB		4000	13.2*			

<sup>\*</sup> with air conditioning

Mfgr. <u>FORD</u>	MOTOR COMPANY	Exhaust	Engine F	amily:	TFM3.028G1	FK	
Engine Code	Types: CA <u>X</u> 49S	50SEvapo:	rative Em:	issions	Family: TF	M1045AYPBA	
Exh Std: Ties	r-0 Tier-1_X_	TLEV LEV	ULEV	ZI	EV EPA T	IER-0	TIER-1
Evap Std: 50	OK <u>X</u> Useful Life	with R/L	In-Use E	kh Std:	Full In Use	a Alt	In Use
Veh Class(es)	): PCLDT1	LDT2 <u>X</u> MD	V1 MD'	V2	MDV3 MD	V4 MDV	5
Single Cert	Std for Multi-Clas	ss Eng Fam: <u>N</u>	/A (sp	ecify:	N/A, LDT1,M	DV1,MDV2,M	DV3,MDV4)
Exh Cert Fue	l(s): Indo <u>X</u> Ph2	Diesel: M85	13 CCR 22	82 ( LP	or 40CFR 86.	113-90 (specicy)	or -94
	: Dedicated Gasoline_X_ I	Diesel M85	CNG_	LP(	G Other	(specify)_	
Engine Config	e A B C gV-6 2	_, APU Cyc Displac	cle (eg, cement: Rated :	Otto, 3.0L HP: <u>1</u>	Diesel, Tur (183) I 40 @ 5000	bine) iters (Cul RPM	oic Inches)
Engine: From	nt <u>X</u> Mid Rea	ar Drive:	Fwd	RWD <u>X</u>	4WD-F"I"	4WD-PT <u>.</u> A	
Exhaust Cont	rol System and Spe	ecial Features	TWOZ) SF (Use	1,2 <u>H029</u> abbre	s, EGR H02 viations per	SAE J1930	SEP91)
Ingine Code	Vehicle Models	Trans. Type	ETW	DPA	Ignition	EGR	Catalytic
	(if coded see attachment)	A-Automatic M-Manual			(ECM/PCM)   Part No.		
655SR11A/N	Ranger/Mazda 4x2	M5	•		F57F-CHC	F37E-CA F3DE-AA E6AE-BA	F57A-ED
	SC SWB		3750	12.3*			
655RR11A/N	Ranger/Mazda 4x4	M5			F57F-CGC	ŧI	u
	RC LWB		3750	12.0			
	RC SWB	•	3750	12.0			
	RC LWB		3875	13.2*			
	RC SWB (Mazda on	Ly)	3875	13.2*			
	RC SWB (Ranger of	nly)	3750	13.2*			
	SC SWB		4000	12.0			
	SC SWR		4000	13.2*			

<sup>\*</sup> with air conditioning